configuring a micro-particle within the accelerator barrel at a launch point proximate to the trigger valve;

by abruptly releasing the armed trigger valve, abruptly releasing pressurized gas from the chamber and into the open proximal end of the accelerator, wherein, the abruptly released pressurized gas is configured to accelerate the micro-particle from the launch point to the open distal end of the accelerator barrel and through the aperture with sufficient momentum to pierce through the aperture membrane and penetrate a sufficient depth of dermal tissue proximate to the distal end of the negative-pressure barrel to induce a micro-emergence of blood at the dermal tissue surface; and

drawing at least a portion of blood from the micro-emergence into the evacuated negative-pressure barrel through the pierced aperture.

29. The method of claim **28**, further comprising, subsequent to drawing the at least a portion of blood:

re-evacuating the negative-pressure barrel of a device;

re-arming the trigger valve;

re-configuring a replacement micro-particle within the accelerator barrel at the launch point;

abruptly re-releasing the re-armed trigger valve; and

drawing at least a portion of blood from a subsequent micro-emergence at the dermal tissue surface.

30. A method comprising:

configuring a micro-particle at a launch point at a proximal end of an accelerator barrel of a hand-portable hyperspeed micro-particle accelerator device, wherein the accelerator barrel is positioned lengthwise within an outer barrel of the hand-portable hyperspeed micro-particle accelerator device and has an open distal end proximate to, and aligned with, an aperture at a distal end of the outer barrel;

arming the hand-portable hyperspeed micro-particle accelerator device for hyperspeed acceleration of the micro-particle; and

triggering the armed hand-portable hyperspeed micro-particle accelerator device to cause the micro-particle to accelerate from the launch point to the open distal end of the accelerator barrel and through the aperture with sufficient momentum to pierce dermal tissue proximate to the distal end of the outer barrel with no larger than a dermal-pore-sized surface puncture.

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